

ABSTRACT

A projection display is provided according to one embodiment of the invention. The projection display includes a hollow case including a window opening, a screen formed on one portion of the case, and at least one mirror internally mounted to the case at a position to reflect light from the window opening to the screen. The projection display further includes a window mounted in the window opening. The projection display further includes an optical engine mounted to the case. The optical engine is positioned over the window and oriented so that emitted light from the optical engine is directed onto the at least one mirror. The projection display further includes a diaphragm internally attached to the case and dividing an internal volume of the case into a first portion and a second portion. The projection display further includes a gas filling the second portion of the case at an overpressure and a vent communicating with the first portion of the case and communicating with an external environment. The vent at least partially equalizes the overpressure of the second portion with a pressure of the external environment.